



Permit / Application Information Sheet
Division of Environmental Protection
West Virginia Office of Air Quality

Company:	Williams Ohio Valley Midstream LLC	Facility:	McClain
Region:	1	Plant ID:	051-00206
Application #:	13-3264		
Engineer:	Griffith, Caraline	Category:	
Physical Address:	Beams Ln 0.8 mi S of US 250 Moundsville WV	SIC: [1382] OIL AND GAS EXTRACTION - OIL AND GAS EXPLORATION SERVICE NAICS: [213112] Support Activities for Oil and Gas Operations	
County:	Marshall		
Other Parties:	ENV_CONT - Zawaski, Danell 412-787-4259 VICE PRES - Wicburg, Don 412-787-7300		

Information Needed for Database and AIRS
 1. Need valid physical West Virginia address with zip

Regulated Pollutants

Summary from this Permit 13-3264		
Air Programs	Applicable Regulations	
NESHAP		
SIP		
Fee Program	Fee	Application Type
9M	\$3,500.00	CONSTRUCTION

Notes from Database

Activity Dates

APPLICANT PUBLISHED LEGAL AD	08/06/2015
APPLICATION RECIEVED	08/10/2015
APPLICATION FEE PAID	08/11/2015
ASSIGNED DATE	08/11/2015
APPLICATION DEEMED COMPLETE	08/31/2015

NON-CONFIDENTIAL

Please note, this information sheet is not a substitute for file research and is limited to data entered into the AIRTRAX database.

Company ID: 051-00206
 Company: Williams Ohio Valley
 Midstream
 Printed: 09/03/2015
 Engineer: Griffith, Caraline

Griffith, Caraline F

From: Adkins, Sandra K
Sent: Tuesday, August 11, 2015 11:46 AM
To: don.wicburg@williams.com
Cc: McKeone, Beverly D; Griffith, Caraline F; danell.zawaski@williams.com
Subject: WV DAQ Permit Application Status for Williams Ohio Valley Midstream LLC; McClain

**RE: Application Status
Williams Ohio Valley Midstream LLC
McClain
Plant ID No. 051-00206
Application No. R13-3264**

Mr. Wicburg,

Your application for a construction permit for the McClain facility was received by this Division on August 10, 2015, and was assigned to Caraline Griffith. The following item was not included in the initial application submittal:

Original affidavit for Class I legal advertisement not submitted.

**Please note to use the new phone extension 1250 for future legal ads*

This item is necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive a letter from Caraline stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Caraline Griffith, at 304-926-0499, extension 1258.

Griffith, Caraline F

From: Jarrett, James F
Sent: Tuesday, August 25, 2015 11:34 AM
To: Griffith, Caraline F
Subject: Re: McClain Facility Site Inspection

Is this what you're looking for? The site has TEG dehy that is colocated with Chevron's McClain well site. If Chevron's wells are shut-in then Williams dehy does not dry any natural gas. The dehy has the following: 2 glycol pumps rated at 50 gph each, flash tank was operating at 124F & 98psig, reboiler BTU rating is 200,000; flash tank gas is routed to reboiler for fuel. Leaks were observed with our FLIR camera. The dehy has natural gas actuated pneumatic controllers. Quad O might apply? There is a 150 gallon TEG tank and 130 gallon methanol tank onsite.

Coordinates 39.9273 & -80.6960

Sent from my iPhone

On Aug 25, 2015, at 8:35 AM, Griffith, Caraline F <Caraline.F.Griffith@wv.gov> wrote:

Hi James,

I am currently working on permit R13-3264 for the McClain Facility for Williams Ohio Valley Midstream, LLC in Moundsville. I checked AirTrax and saw that you were assigned to do the inspection in January. Could you tell me if the site looked alright and what rating you may be giving it? I really appreciate it! Thank you so much!

Caraline Griffith

Dept. of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Engineer Trainee
Caraline.F.Griffith@wv.gov
304-926-0499 x1258

Griffith, Caraline F

From: Walter Konkel <wkonkel@elogicllc.com>
Sent: Wednesday, August 26, 2015 11:19 AM
To: Griffith, Caraline F
Cc: 'Zawaski, Danell'
Subject: Williams McClain Permit Application - Dehydrator Reboiler Emission Factors

Caraline – Danell Zawaski asked me to answer your question below on the Williams Ohio Valley Midstream McClain Dehydration Station permit application. Emission factors for the dehydrator reboiler RBV-01 (criteria and hazardous air pollutants) are taken from EPA AP-42 Section 1.4, Natural Gas Combustion, and are referenced in the table found in Attachment N of the permit application.

Thanks,

Walter Konkel
EcoLogic Environmental Consultants, LLC
(805) 964-7597 (office)
(805) 284-4430 (mobile)
wkonkel@elogicllc.com

From: Zawaski, Danell [<mailto:Danell.Zawaski@williams.com>]
Sent: Wednesday, August 26, 2015 8:04 AM
To: Walter Konkel
Subject: Fwd: Message from "PITT2FL-PRINTRM-C3502"

From: "Griffith, Caraline F" <Caraline.F.Griffith@wv.gov>
Date: August 26, 2015 at 10:54:00 AM EDT
To: "Zawaski, Danell" <Danell.Zawaski@williams.com>
Subject: RE: Message from "PITT2FL-PRINTRM-C3502"

Hi Danell!

So great to be working with you again. I was wanting to let you know that I received the legal ad today. Thank you very much!

I do have one question regarding the application: I am just double checking the emission calculations and for the Reboiler (RBV-1) it says AP-42 was used to calculate the emissions. Could you tell me what chapter from AP-42 was used?

Thank you!

Best regards,

Caraline Griffith

Dept. of Environmental Protection
Division of Air Quality

601 57th Street SE
Charleston, WV 25304
Engineer Trainee
Caraline.F.Griffith@wv.gov
304-926-0499 x1258

-----Original Message-----

From: Zawaski, Danell [<mailto:Danell.Zawaski@williams.com>]
Sent: Thursday, August 20, 2015 3:13 PM
To: Griffith, Caraline F
Subject: FW: Message from "PITT2FL-PRINTRM-C3502"

Hi Caraline,
Attached is a scan of the legal notice that I am sending you for McClain. Please let me know if you have any questions.

Regards,
Danell

R. Danell Zawaski, PE
Environmental Specialist
NEGP Environmental Services
304-843-3133 Moundsville
412/787-4259 Pittsburgh
505/787-7926 cell
412/787-6002 fax
Danell.zawaski@williams.com

-----Original Message-----

From: PITT2FL_PRINTRM_C3502@williams.com [mailto:PITT2FL_PRINTRM_C3502@williams.com]
Sent: Thursday, August 20, 2015 4:02 PM
To: Zawaski, Danell <Danell.Zawaski@williams.com>
Subject: Message from "PITT2FL-PRINTRM-C3502"

This E-mail was sent from "PITT2FL-PRINTRM-C3502" (Aficio MP C3502).

Scan Date: 08.20.2015 15:02:27 (-0500)
Queries to: PITT2FL_PRINTRM_C3502@williams.com

Griffith, Caraline F

From: Zawaski, Danell <Danell.Zawaski@williams.com>
Sent: Wednesday, September 02, 2015 4:59 PM
To: Griffith, Caraline F; wkonkel@elogicllc.com
Cc: Jarrett, James F; Zawaski, Danell
Subject: RE: Williams Ohio Valley Midestream, LLC - McClain Dehy Facility - Permit Status

Hi Caraline,
It was not a leak. It was the flash tank. Please move forward with our permit. Thank you.

Jamie – I have verified with operations that the PSV was checked as you requested.

Regards,
Danell

D. Danell Zawaski, PE

Environmental Specialist
NEGP Environmental Services
304-843-3133 Moundsville
412/787-4259 Pittsburgh
505/787-7926 cell
412/787-6002 fax
Danell.zawaski@williams.com

From: Griffith, Caraline F [<mailto:Caraline.F.Griffith@wv.gov>]
Sent: Monday, August 31, 2015 1:34 PM
To: wkonkel@elogicllc.com
Cc: Zawaski, Danell <Danell.Zawaski@williams.com>; Jarrett, James F <James.F.Jarrett@wv.gov>
Subject: Williams Ohio Valley Midestream, LLC - McClain Dehy Facility - Permit Status

Hello!

I am almost done reviewing everything for your permit, and am currently about to get it ready to deem "complete." I have one question, however, that just came to my attention that needs to be fixed, if it has not already. During the site inspection that occurred on/around January 22, 2015 it was determined that there was a natural gas leak. Do you know if that leak has been fixed? If not it will need to be fixed before a permit can be issued. I have copied the enforcement officer (Mr. James Jarrett) who last inspected your facility; in case I can't answer any of your questions, he may be able to. It is his intention to come back for an inspection in the next couple weeks.

Thank you for all your cooperation, and I look forward to hearing back from you soon.

Best regards,

Caraline Griffith

Dept. of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Engineer Trainee
Caraline.F.Griffith@wv.gov
304-926-0499 x1258

AIR QUALITY PERMIT NOTICE

Notice of Intent to Approve

On August 10, 2015, Williams Ohio Valley Midstream, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a permit to Construct their McClain Dehydrator facility located Beams Lane, 0.8 miles South of US 250, Moundsville, Marshall County, WV at latitude 39.9274 and longitude -80.6960. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed facility. The DAQ is providing notice to the public of its preliminary determination to issue the permit as R13-3264.

The potential emissions will be authorized by this permit action: Particulate Matter less than 10 microns, 0.01 tons per year (TPY); Particulate Matter, 0.01 TPY; Sulfur Dioxide, <0.01 TPY; Oxides of Nitrogen, 0.10 TPY; Carbon Monoxide, 0.09 TPY; Volatile Organic Compounds, 41.12 TPY.

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on **KEYBOARD**(Day of Week, Month, Day, Year). A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed Construction will meet all State and Federal air quality requirements. The purpose of the public review process is to accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Caraline Griffith
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
Telephone: 304/926-0499, ext. 1258
FAX: 304/926-0478

Additional information, including copies of the draft permit, application and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation can be downloaded at:

www.dep.wv.gov/daq/Pages/NSRPermitsforReview.aspx



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone (304) 926-0475 • FAX: (304) 926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-3264
Plant ID No.: 051-00206
Applicant: Williams Ohio Valley Midstream
Facility Name: McClain Dehydration Station
Location: Moundsville, Marshall County, WV
SIC Code: 1382 (Oil and Gas Extraction - Oil and Gas Exploration Service)
NAICS Code: 213112 (Support Activities for Oil and Gas Operations)
Application Type: Construction
Received Date: August 10, 2015
Engineer Assigned: Caraline Griffith
Fee Amount: \$3,500
Date Received: August 11, 2015
Complete Date: August 31, 2015
Due Date: December 1, 2015
Applicant Ad Date: August 6, 2015
Newspaper: *Moundsville Daily Echo*
UTM's: Easting: 525.97 km Northing: 4,419.74 km Zone: 17S
Description: Construction permit for the existing facility that had previously been deemed exempt. The equipment at the site are one (1) 5.0 MMscfd Tri-Ethylene Glycol (TEG) Dehydrator comprised of one TEG Dehydrator Flash Tank (DFT-01)(1E) and one TEG Dehydrator Regenerator/Still Vent (DSV-01)(2E), and one 0.22 MMBtu/hr TEG Reboiler (RBV-01)(3E). There are also two tanks on-site: one (1) 325 gallon Methanol storage tanks and one (1) 200 gallon Glycol storage tank.

DESCRIPTION OF PROCESS

Project Overview:

Williams Ohio Valley Midstream, LLC (OVM) has submitted an application for a 45CSR13 New Source Review (NSR) Construction Permit for the existing (but previously determined exempt) OVM McClain Dehydration Station (DS), located approximately 1.5 miles east of Moundsville, in Marshall County, West Virginia.

The application requests authorization for continued operation of the facility, as follows:

- One (1) 5.0 Mmscfd TEG Dehydrator (DFT-01 and DSV-01)(1E and 2E)
- One (1) 0.22 MMBtu/hr TEG Reboiler (RBV-01)(3E)
- Fugitive Emissions (Fug)(4E)

Tri-Ethylene Glycol (TEG) Dehydrator (DFT-01 and DSV-02)(1E and 2E):

One (1) Tri-Ethylene Glycol (TEG) Dehydrator is utilized at the facility. The dehydrator is comprised of a Contactor/Absorber Tower (no vented emissions), Flash Tank (DFT-01), and Regenerator/Still Vent (DSV-01).

The TEG dehydrator is used to remove water vapor from the inlet wet gas stream to meet pipeline specifications. In the dehydration process, the wet inlet gas stream flows through a contactor tower where the gas is contacted with lean glycol. The lean glycol absorbs the water in the gas stream and becomes rich glycol laden with water and trace amounts of hydrocarbons.

The rich glycol is then routed to a flash tank where the glycol pressure is reduced to liberate the lighter end hydrocarbons. Whenever practical, the lighter end hydrocarbons are routed from the flash tank to the reboiler for use as fuel; otherwise these off-gases are vented to the atmosphere.

The rich glycol is then sent from the flash tank to the regenerator/still vent where the TEG is heated to drive off the water vapor and any remaining hydrocarbons. Once boiled, the glycol is returned to a lean state and used again in the process.

Reboiler (RBV-01)(3E):

One (1) 0.22 MMBtu/hr Reboiler (RBV-01) is utilized to supply heat for the Tri-Ethylene Glycol (TEG) Regeneration/Still Vent (DSV-01).

Fugitive Emissions (FUG)(4E):

During routine operation of the facility there will be leaks from the process piping components such as valves, flanges, connectors, etc. Leaks from the process piping components results in VOC and HAP emissions to the atmosphere.

Emission Units Table:

Emission Unit ID	Emission Point ID	Description	Installed	Capacity	Type of Change	Control
DFT-01	1E	5.0 Mmscfd Dehydrator - Flash Tank	2012	5.0 MMscfd	Existing	NA
DSV-01	2E	5.0 Mmscfd Dehydrator - Regenerator/Still Vent	2012	5.0 MMscfd	Existing	NA
RBV-01	3E	0.22 MMBtu/hr Reboiler Vent	2012	0.22 MMBtu/hr	Existing	NA

SITE INSPECTION

The writer did not inspect the site. The site was inspected by James Jarrett, an inspector with Compliance and Enforcement, on January 22, 2015. The site has a TEG dehydrator that is collocated with Chevron's McClain well site. If Chevron's wells are shut-in then Williams' dehydrator does not dry any natural gas. The dehydrator has the following: 2 glycol pumps rated at 50 gph each, flash tank was operating at 124F & 98psig, reboiler BTU rating is 200,000; flash tank gas is routed to reboiler for fuel.

Leaks were observed with an FLIR camera. After inquiry with the contact it was concluded that these leaks were misidentified, actually being the flash tank emissions, as they have a 50% VOC/HAP emission reduction. It was also inquired as to how Williams plans to demonstrate compliance with their 50% VOC/HAP emission reduction limitations. They said that Williams will monitor the flash tank pressure quarterly and that can be used to check if it exceeds the pressure relief device setting. The Inspector asked Williams to check and see if the pressure relief device seated properly after a gas release and to check and see if it was sized properly. Williams checked and assured that it was. The dehydrator has natural gas actuated pneumatic controllers. There is a 150 gallon TEG tank and a 130 gallon methanol tank onsite.

Directions from Wheeling Ave in Moundsville:

Head southeast onto Jefferson Ave for 0.7 miles. Turn left onto 1st Street for 0.8 miles. Turn left onto US-250/Waynesburg Pike for 2.4 miles. Turn right onto Beams Lane for 0.8 miles. Take a slight left onto the gravel access road for 0.1 miles. Entrance to the site is straight ahead.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

New potential emission calculations were reviewed and verified by the writer. Emissions were calculated with the method provided in the emissions summary table. As needed, additional explanation follows. The TEG dehydration potential emissions include a 20% contingency that has been added to the GRI-GLYCalc model results

[DFT-01, DSV-01] to account for potential future changes in gas quality. The Reboiler (RBV-01) emissions estimates were calculated using AP-42, Chapter 1.4-3.

Emissions Summary Table:

Emission Unit ID	Emission Point ID	Control Device	Regulated Pollutant	Controlled Potential Emissions		Calculation Method
				lb/hr	tpy	
DFT-01	1E	None	VOC	6.31	27.64	GlyCalc
			n-Hexane	0.15	0.66	GlyCalc
			Benzene	0.01	0.06	GlyCalc
			Toluene	0.03	0.13	GlyCalc
			Ethylbenzene	<0.01	<0.01	GlyCalc
			Xylenes	0.02	0.09	GlyCalc
			Total HAP	0.21	0.93	GlyCalc
			CO ₂ e	357	1565	40CFR98
DSV-01	2E	None	VOC	2.30	10.08	GlyCalc
			n-Hexane	0.05	0.23	GlyCalc
			Benzene	0.13	0.58	GlyCalc
			Toluene	0.40	1.75	GlyCalc
			Ethylbenzene	0.01	0.05	GlyCalc
			Xylenes	0.53	2.34	GlyCalc
			Total HAP	1.13	4.94	GlyCalc
			CO ₂ e	4.47	19.58	40CFR98
RBV-01	3E	None	NO _x	0.02	0.10	AP-42
			CO	0.02	0.08	AP-42
			VOC	<0.01	0.01	AP-42
			SO ₂	<0.01	<0.01	AP-42
			PM ₁₀ /PM _{2.5}	<0.01	0.01	AP-42
			Formaldehyde	<0.01	<0.01	AP-42
			n-Hexane	<0.01	<0.01	AP-42
			Benzene	<0.01	<0.01	AP-42
			Toluene	<0.01	<0.01	AP-42
			Total HAP	<0.01	<0.01	AP-42

			CO2e	26	114	40CFR98
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Fugitive Emissions Table:

Fugitive Emission Source	Emission Point ID	Regulated Pollutant	Maximum Potential Emissions	
			lb/hr	tpy
Equipment Leaks - Gas/Vapor	4E	VOC	0.77	3.39
		n-Hexane	0.01	0.06
		Benzene	<0.01	<0.01
		Toluene	<0.01	<0.01
		Ethylbenzene	<0.01	<0.01
		Xylenes	<0.01	<0.01
		Total HAP	0.01	0.06
		CO ₂ e	88	385

Total Facility PTE:

Regulated Pollutant	Proposed Maximum Potential to Emit (TPY) without fugitives	Proposed Maximum Potential to Emit (TPY) with fugitives
NO _x	0.10	0.10
CO	0.09	0.09
VOC	37.73	41.12
SO ₂	<0.01	<0.01
PM ₁₀ /PM _{2.5}	0.01	0.01
Formaldehyde	<0.01	<0.01
n-Hexane	0.90	0.96
Benzene	0.64	0.64
Toluene	1.88	1.88
Ethylbenzene	0.06	0.06
Xylenes	2.41	2.41
Total HAP	5.07	5.13
CO ₂ e	1698.58	2083.58

AGGREGATION DISCUSSION

To determine major source status, a three-part analysis is used to determine whether emissions from two or more facilities should be aggregated and treated as a single source. The three prongs include: belonging to the same major industrial grouping; and are located on one or more contiguous or adjacent properties; and are under common control.

Same Industrial Grouping:

The subject facility will operate under SIC code 1321 (Natural Gas Liquids Extraction). The upstream gas production wells operate under SIC code 1311 (Crude Petroleum and Natural Gas). Therefore, the subject facility shares the same two-digit major SIC code of 13 as the upstream gas production wells.

Contiguous or Adjacent:

The determination of whether two or more facilities are "contiguous" or "adjacent" is made on a case-by-case basis. The term contiguous is defined in the dictionary as being in actual contact; touching along a boundary or at a point. The term adjacent is defined in the dictionary as not distant, nearby, having a common endpoint or border.

The location of the subject facility was chosen because of suitable characteristics for construction and operation, such as the availability of a reasonably flat grade and accessibility for large trucks and equipment. Williams' business model is to construct scalable capacity that contemplates additional production from multiple operators and the initial configuration is merely a foundation for additional opportunities in the area. Although the location of the subject facility is in close proximity to one or more nearby upstream production sources, the subject facility does not need to be located in the immediate vicinity of the nearby wells in order to operate properly and was selected for reasons unrelated to the location of the production wells.

Common Control:

Williams OVM operates under its parent company The Williams Companies, Inc. (Williams) and is the sole operator of the subject facility. The closest Williams operated facility to the subject facility is the Witzgal Dehydration Station (DS), which is located approximately 0.5 miles to the east. The production wells that send natural gas to the subject facility are owned and operated by other companies, which are unaffiliated with Williams. Williams has no ownership stake in the production wells that may send natural gas to the subject facility.

Furthermore, neither Williams OVM, nor Williams, exercise operational control over any equipment owned or operated by a natural gas producer upstream of the subject facility. All employees at the subject facility are under the exclusive direction of Williams and are not under the control of any other entity. Similarly, Williams has no authority over employees of the production wells. These companies operate wholly

independent of one another. No employees are expected to shuttle back and forth between the subject facility and any production well.

At this time, contracts are in place for the subject facility to process natural gas produced from multiple upstream production wells located throughout the region. As future commercial opportunities are identified, the subject facility will potentially receive gas from other producers. Williams will not have ownership or control of any future wellhead facilities. The producers are, and will be responsible for, any decisions to produce or shut-in wellhead facilities and have no control over the equipment installed, owned, and operated by Williams. Similarly, Williams cannot control the installation or operation of any equipment located at a well site that may be considered an air contamination source.

Conclusion:

The three-prong test has not been met. There is no common control with any of the upstream wells. Additionally, the subject facility and the upstream production wells, considered together, do not meet the common sense notion of a plant because the subject facility is expected to service multiple production wells and because the facility was selected for reasons unrelated to the location of the production wells. Therefore, the facilities should not be aggregated to determine major source status. Williams OVM, McClain Dehydration Station should continue to be treated as a single source.

REGULATORY APPLICABILITY

Applicable State Regulations. The following regulations apply to the modified facility. If the modification did not impact existing applicability, it is not addressed.

45CSR2 TO PREVENT AND CONTROL PARTICULATE AIR POLLUTION FROM COMBUSTION OF FUEL IN INDIRECT HEAT EXCHANGERS

The applicant is not subject to the weight emission standard for particulate matter set forth in 45 CSR2-4.1 because the Reboiler [RBV-01] is less than 10 MMBtu/hr; however, they are subject to the 10% opacity based on a six minute block average. Compliance will be demonstrated by complying with permit requirements. The applicant is using natural gas as fuel; therefore, meeting the 10% opacity requirements should not be a problem.

45CSR4 TO PREVENT AND CONTROL THE DISCHARGE OF AIR POLLUTANTS INTO THE OPEN AIR WHICH CAUSES OR CONTRIBUTES TO AN OBJECTIONABLE ODOR

The applicant is subject to this rule. It states that an odor that is deemed objectionable when in the opinion of a duly authorized representative of the Air Pollution Control Commission (Division of Air Quality), based upon their investigations and complaints,

such odor is objectionable. The applicant does not foresee any objectionable odors being present at this site now or in the future.

45CSR10 TO PREVENT AND CONTROL AIR POLLUTION FROM THE EMISSION OF SULFUR OXIDES

The Reboiler [RBV-01] has a maximum design heat input of less than 10 MMBtu/hr and are therefore exempt from sections 3, 6, and 8.

45CSR13 PERMITS FOR CONSTRUCTION, MODIFICATION, RELOCATION AND OPERATION OF STATIONARY SOURCES OF AIR POLLUTANTS, NOTIFICATION REQUIREMENTS, ADMINISTRATIVE UPDATES, TEMPORARY PERMITS, GENERAL PERMITS, PERMISSION TO COMMENCE CONSTRUCTION, AND PROCEDURES FOR EVALUATION

The applicant is subject to this rule because the facility's aggregate HAP emissions exceed the construction threshold of 5 tons per year.

Williams has demonstrated compliance with 45CSR13 by submitting a complete modification permit application, placing a legal advertisement in the *Moundsville Daily Echo* on August 6, 2015, and paying the applicable fees.

45CSR22 AIR QUALITY MANAGEMENT FEE PROGRAM

The applicant has paid the \$1,000 application fee and the \$2,500 NESHAP fee as required by section 3.4.b of this rule because they are subject to NESHAP requirements as described in this regulatory review section.

Additionally, the source is required to maintain their certificate to operate.

45CSR34 EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The facility is subject to 45CSR34 by reference of 40 CFR 63, Subparts HH.

Applicable Federal Regulations. The following regulations apply to the construction of the facility.

40 CFR63, SUBPART HH NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FROM OIL AND NATURAL GAS PRODUCTION FACILITIES

Subpart HH establishes national emission limitations and operating limitations of HAPs emitted from oil and natural gas production facilities located at major and area sources of HAP emissions. For area source applicability, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in §63.760(a).

The glycol dehydration unit [DFT-01 and DSV-01] is a TEG dehydration unit located at an area source of HAPs and thus is subject to this subpart. Because the potential benzene emissions are less than 1 tpy, the units are only subject to the recordkeeping requirements that demonstrate exemption from the control requirements of this rule.

Based on the PTE emissions, the applicant will be in compliance with the benzene exception from § 63.764(d) and further compliance will be demonstrated by demonstrating compliance with the recordkeeping requirements provided in the permit.

The new EG dehydration unit is not subject to this subpart. For area sources, only TEG dehydration units can be affected sources.

Non-applicability determinations. It has been determined that the applicant is not subject to the following rules.

45CSR6 TO PREVENT AND CONTROL AIR POLLUTION FROM THE COMBUSTION OF REFUSE

The applicant has no combustors on site and will not have the combustion of any refuse.

45CSR14 PERMITS FOR CONSTRUCTION AND MAJOR MODIFICATION OF MAJOR STATIONARY SOURCES OF AIR POLLUTION FOR THE PREVENTION OF SIGNIFICANT DETERIORATION

The McClain Dehydration Facility is not a major source as defined in § 2.3b because it does not emit or have the potential to emit 250 tpy or more of any regulated NSR pollutant. The facility also does not meet the definition of a major modification as defined in § 2.40 because it is not a major source.

45CSR16 STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES PURSUANT TO 40 CFR PART 60

The McClain facility is not subject to this rule because the facility is not subject to an NSPS 40CFR60 rules.

45CSR30 REQUIREMENTS FOR OPERATING PERMITS

The McClain Dehydration Facility is a single stationary source for determining Title V applicability as discussed in the aggregation discussion of this evaluation. The McClain Dehydration Facility does not meet the definition of a major source defined in 45CSR30 § 2.26.a because the facility PTE does not include any individual HAP that emits 10 tpy or more nor a combination of HAPs that emit 25 tpy or more.

The McClain Dehydration Facility does not meet the definition of a major source defined in 45CSR30 § 2.26.b because there is not any air pollutant subject to regulation that

has a PTE of 100 tpy or more. The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source unless it belongs to one of the source categories of listed in 2.26.b.

A natural gas processing plant (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. The McClain Dehydration Facility is not considered a natural gas processing facility (2.26.b.38) and therefore, fugitive emissions are not considered when determining major source status. The VOC PTE without considering fugitive emissions is 37.71 tpy and is less than the 100 tpy threshold.

NSPS, Subpart GG STANDARDS OF PERFORMANCE FOR STATIONARY GAS TURBINES

This subpart does not apply because the Capstone C200 microturbines [CT01 thru CT-10] are not stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired and therefore do not meet the applicability requirements per § 60.330(a).

40CFR60, SUBPART Kb STANDARDS OF PERFORMANCE FOR VOLATILE ORGANIC LIQUID STORAGE VESSELS (INCLUDING PETROLEUM LIQUID STORAGE VESSELS) FOR WHICH CONSTRUCTION, RECONSTRUCTION, OR MODIFICATION COMMENCED AFTER JULY 23, 1984

Subpart Kb establishes control requirements, testing requirements, monitoring requirements, and recordkeeping and reporting requirements.

Subpart Kb applies to any storage vessel with a capacity greater than 19,313 gallons that is used to store volatile organic liquids except that it does not apply to storage vessels with a capacity greater than 39,890 gallons storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than 19,813 gallons but less than 39,890 gallons storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

This subpart does not apply to vessels with a design capacity less than or equal to 419,204 gallons used for petroleum or condensate stored, processed, or treated prior to custody transfer.

40CFR60, SUBPART KKK LEAKS FROM NATURAL GAS PROCESSING PLANTS

The facility is not affected by this rule because the McClain facility is not a natural gas processing plant.

40CFR60, SUBPART LLL ONSHORE NATURAL GAS PROCESSING: SO₂ EMISSIONS

The facility is not affected by this rule because not only is this facility not a natural gas processing plant, but there is no gas sweetening operation at this facility.

40CFR60, SUBPART OOOO CRUDE OIL AND NATURAL GAS PRODUCTION

This rule does not apply to the pneumatic controllers at this facility because they are located between the wellhead and the point of custody transfer, are not located at a natural gas processing plant, and their bleed rate is less than, or equal to, 6 scfh.

40CFR63, SUBPART HHH NATURAL GAS TRANSMISSION AND STORAGE FACILITIES

The facility is not a natural gas transmission or storage facility transporting or storing natural gas prior to local distribution, therefore this facility is not subject to this rule.

40CFR63, SUBPART JJJJJJ INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS - AREA SOURCES

This facility is not subject to this rule because gas-fired boilers are not subject to the requirements of this rule. Specifically, "boiler" is defined as an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam and/or hot water.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANT

Triethylene Glycol is a hazardous air pollutant for the dehydration plant as discussed in the process description section.

TEG is used by the oil and gas industry to dehydrate natural gas. It may also be used to dehydrate other gases, including CO₂, H₂S, and other oxygenated gases. It is necessary to dry natural gas to a certain point, as humidity in natural gas can cause pipelines to freeze, and create other problems for end users of the natural gas. Triethylene glycol is placed into contact with natural gas, and strips the water out of the gas. Triethylene glycol is heated to a high temperature and put through a condensing system, which removes the water as waste and reclaims the TEG for continuous reuse within the system. The waste TEG produced by this process has been found to contain enough benzene to be classified as hazardous waste (benzene concentration greater than 0.5 mg/L). This substance/agent has not undergone a complete evaluation and determination under US EPA's IRIS program for evidence of human carcinogenic potential.

AIR QUALITY IMPACT ANALYSIS

Modeling was not required for this source due to the fact that the facility is not considered a "major source" according to 45CSR 14 or 45CSR19.

MONITORING OF OPERATIONS

The following monitoring requirements are included in the permit :

1. Records to demonstrate facility wide minor source status on an annual basis
2. Opacity requirements for RBV-01
3. Throughput and other monitoring of the dehydration units
4. Monitoring requirements in Subpart HH for the TEG dehydration units

RECOMMENDATION TO DIRECTOR

It is recommended that permit R13-3264 be granted to Williams Ohio Valley Midstream LLC; McClain Dehydration Facility located in Moundsville, Marshall County. Based on the information provided in the application, including all supplemental information received, the applicant should be in compliance with all applicable state and federal air regulations.



Caraline Griffith
Permit Engineer

9/25/15

Date

West Virginia Department of Environmental Protection
Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Construct



R13- 3264

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

**Williams Ohio Valley Midstream LLC
McClain Dehydration Facility
051-00206**

William F. Durham
Director

Issued: DRAFT

This permitting action supersedes and replaces G35-A080.

Facility Location: Moundsville, Marshall County, West Virginia
Mailing Address: Park Place Corporate Center 2, 2000 Commerce Drive, Pittsburgh, PA 15275
Facility Description: Dehydration station
NAICS Codes: 213112
UTM Coordinates: 525.97 km Easting • 4419.74 km Northing • Zone 17S
Permit Type: Construction
Description of Change: Construction of a natural gas dehydration station consisting of a contactor/absorber tower (no vented emissions), one Flash Tank (DFT-01), one regenerator/still vent (DSV-01), one reboiler (RBV-01), one 325 gallon Methanol Tank, and one 200 gallon glycol tank.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is not subject to 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
DFT-01	1E	TEG Dehydrator Flash Tank	2012	40 MMscfd	None
DSV-01	2E	TEG Dehydrator Still Vent	2012	40 MMscfd	None
RBV-01	3E	TEG Dehydrator Reboiler	2012	1.11 MMBtu/hr	None
FUG	4E	Piping and Equipment Fugitives – Gas/Vapor	2012	N/A	None
T01	5E	Methanol Storage Tank	2012	325 gal	None
T02	6E	Glycol Storage Tank	2012	200 gal	None

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the “West Virginia Air Pollution Control Act” or the “Air Pollution Control Act” mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The “Clean Air Act” means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary’s designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 μm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppm_v or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued General Permit Registration G35-A080. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3206 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and -10.3.]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by

improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] *[State Enforceable Only]*
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling

connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language;
 2. The result of the test for each permit or rule condition; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee

- 3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

- 4.1.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.
- 4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.
- 4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]
- 4.1.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
 - f. Steps taken to correct the malfunction.
 - g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.1.5. **Minor Source.** The permittee shall maintain records to demonstrate that the facility does not exceed the major source threshold defined in 45CSR30-2.26.b as directly emitting or having the potential to emit 100 tpy or more of any air pollutant subject to regulation.

5.0. Source-Specific Requirements (Dehydration Unit: DFT-01; RBV-01; DSV-01)

5.1. Limitations and Standards

- 5.1.1. The maximum dry natural gas throughput to the glycol dehydration units/still columns shall not exceed the throughput below.

Table 5.1.1. Throughput Limits for Glycol Dehydration Unit (DSV-01)

Emission Unit ID	Throughput
DSV-01	5.0 MMscf/day

Compliance with the maximum throughput limitation shall be determined using a twelve month rolling total. A twelve month total shall mean the sum of the monthly throughput at any given time during the previous twelve calendar months.

- 5.1.2. The maximum design heat input for the glycol dehydrator reboiler (RBV-01) shall not exceed 0.22 MMBtu/hr.
- 5.1.3. Maximum emissions from each of the Dehydrator Reboilers and Still Columns (RBV-01, DSV-01) shall not exceed the following limits.

Table 5.1.3. Emissions Limits for Dehydrator Reboilers, Still Columns, and Flash Tanks DSV-01, RBV-01, DFT-01):

Emission Unit ID	Emission Point ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
RBV-01	3E	NOx	0.02	0.10
		CO	0.02	0.08
DSV-01	2E	VOC	2.30	10.08
		Total HAP	1.13	4.94
DFT-01	1E	VOC	6.31	27.64
		Total HAP	0.21	0.93

- 5.1.4. Emission Calculations for DSV-01.
 - a. For purposes of determining potential HAP emissions, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used.
 - b. For the purposes of determining actual annual average natural gas throughput or actual average benzene emissions, the methods specified in § 63.772(b) of 40 CFR 63, Subpart HH shall be used. This applies to the exemption specified in § 63.764(e).
- 5.1.5. The glycol dehydration units (DSV-01, DFT-01) subject to this section shall be designed and operated in accordance with the following:
 - a. The reboilers shall only be fired with natural gas or flash tank gas and natural gas may be used as a supplemental fuel.
 - b. Flash tank off-gases shall be routed, whenever possible, to the reboiler for use as fuel; otherwise the off-gases are vented to the atmosphere.

- 5.1.6. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1.]

5.2. Monitoring Requirements

- 5.2.1. The permittee shall monitor the throughput of dry natural gas fed to the dehydration system on a monthly basis for the glycol dehydration unit (DSV-01).
- 5.2.2. In order to demonstrate compliance with the area source status, claimed within sections 13.1.3 and 13.1.4, as well as the benzene exemption provided under section 13.1.4, the following parameters shall be measured at least once quarterly, with the exception of natural gas flowrate annual daily average, natural gas flowrate maximum design capacity, and dry gas composition, in order to define annual average values or, if monitoring is not practical, some parameters may be assigned default values as listed below.
- a. Natural Gas Flowrate
 - i. Operating hours per quarter
 - ii. Quarterly throughput (MMscf/quarter)
 - iii. Annual daily average (MMscf/day), and
 - iv. Maximum design capacity (MMscf/day)
 - b. Absorber temperature and pressure (except DSV-03, it does not have an absorber)
 - c. Lean glycol circulation rate
 - d. Glycol pump type and maximum design capacity (gpm)
 - e. Flash tank temperature and pressure, if applicable
 - f. Stripping Gas flow rate, if applicable
 - g. Wet gas composition (upstream of the absorber – dehydration column) sampled in accordance with GPA method 2166 and analyzed consistent with GPA extended method 2286 as well as the procedures presented in the GRI-GLYCalc™ Technical Reference User Manual and Handbook V4
 - h. Wet gas water content (lbs H₂O/MMscf)
 - i. Dry gas water content (lbs H₂O/MMscf) at a point directly after exiting the dehydration column and before any additional separation points

The following operating parameter(s) may be assigned default values when using GRI-GLYCalc:

- a. Dry gas water content can be assumed to be equivalent to pipeline quality at 5 lb H₂O / MMscf
 - b. Wet gas water content can be assumed to be saturated at 60 degrees F and 1000 psig
 - c. Lean glycol water content if not directly measured may use the default value of 1.5 % water as established by GRI
 - d. Lean glycol circulation rate may be estimated using the TEG recirculation ratio of 3 gal TEG / lb H₂O removed.
 - e. The glycol pump can be assumed to be gas injection with 1.5 gpm max.
 - f. The flash tank can be assumed to be at 150 degrees F, 50 psig, and with 50% recycle.
 - g. There was no stripping or regen control.
[45CSR§13-5.11, §63.722(b)(2)(i)]
- 5.2.3. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 13.1.7 of this permit. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

5.3. Testing Requirements

- 5.3.1. The permittee shall determine the composition of the wet natural gas by sampling in accordance with GPA Method 2166 and analyzing according to extended GPA Method 2286 analysis as specified in the GRI-GLYCalc™ V4 Technical Reference User Manual and Handbook. As specified in the handbook, the permittee shall sample the wet gas stream at a location prior to the glycol dehydration contactor column, but after any type of separation device accordance with GPA method 2166. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date. The initial compliance test must be conducted within 180 days of permit issuance or within 180 days of startup of the glycol dehydration unit, whichever is later.

Note: The DAQ defines a representative wet gas sample to be one that is characteristic of the average gas composition dehydrated throughout a calendar year. If an isolated sample is not indicative of the annual average composition, the permittee may opt to produce a weighted average based on throughput between multiple sampling events, which can be used to define a more representative average annual gas composition profile.

[45CSR§13-5.11]

- 5.3.2. Upon request by the director, compliance with the visible emission requirements of section 13.1.6 of this permit shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 13.1.7 of this permit. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control. [45CSR§2-3.2.]

5.4. Recordkeeping Requirements

- 5.4.1. The permittee shall maintain a record of the monthly dry natural gas throughput through the glycol dehydration units to demonstrate compliance with section 13.1.1 of this permit. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 5.4.2. For the purpose of demonstrating compliance with the emission limitations, the permittee shall maintain records of all monitoring data, and GRI-GLYCalc™, Promax, or HYSYS emission estimates. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 5.4.3. The permittee shall maintain records of all monitoring data required by section 13.2.3 of this permit documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

- 5.4.4. *Record of Maintenance of Air Pollution Control Equipment.* The permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

5.5. Reporting Requirements

- 5.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

- ¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:
- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
 - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
 - d. The designated representative delegated with such authority and approved in advance by the Director.